

**REMARKS****Summary of the Office Action**

In the Office Action, claims 2-5 and 8-13 have been indicated as including allowable subject matter.

Claims 1 and 6-7 stand rejected under 35 U.S.C. § 103 (a), as being unpatentable over U.S. Patent No. 6,614,538 to *Basler* in view of U.S. Publication No. 2003/0068079 to *Park* and U.S. Patent No. 6,459,477 to *Berlin*.

The specification has been objected to for a minor informality.

**Summary of the Response to the Office Action**

Applicant proposes amending claims 1, 6, 10 and 13, and adding new claims 14-17. Accordingly, claims 1-17 are pending for further consideration.

**All Claims are Allowable**

In the Office Action, claims 1 and 6-7 stand rejected under 35 U.S.C. § 103 (a), as being unpatentable over U.S. Patent No. 6,614,538 to *Basler* in view of U.S. Publication No. 2003/0068079 to *Park* and U.S. Patent No. 6,459,477 to *Berlin*. Applicant traverses the rejection of claims 1 and 6-7 for the following reasons.

With regard to independent claim 1, Applicant respectfully asserts that *Basler*, *Park*, or *Berlin* viewed either singly or in combination, fail to teach or fairly suggest a measuring device including, “means for measuring models for fabrication of dental fittings involving the production of a three-dimensional data set as template for three-dimensional machining of a workpiece, wherein said measuring means are also adapted for the recognition of an identifier providing information on said workpiece,” as recited in independent claim 1, as amended.

Support for these features recited in claim 1 can be found at least on page 2, lines 27-30, page 5, line 25 to page 9, line 15, of the originally filed specification, and in Figs. 1-4 of the originally filed drawings. Specifically, as shown in Figs. 1 and 2, the present invention provides a measuring device including means 16 for measuring models for fabrication of dental fittings involving the production of a three-dimensional data set as a template for three-dimensional

machining of a workpiece 11. The measuring means may be adapted for the recognition of an identifier 22 providing information on the workpiece.

With regard to claims 1 and 6-7, the Office Action cites *Basler*, *Park* and *Berlin* as teaching or suggesting the measuring device as recited in the claims.

*Basler*, as noted in the Office Action and illustrated in Figs. 1-3 thereof, discloses a measuring device (i.e. sensor 2) for the measurement of medical objects, such as tooth models, with the measuring device including a light source and an optical receiver, but at least fails to teach or suggest a measuring means adapted for the recognition of an identifier providing information on the workpiece.

*Park*, as noted in the Office Action, discloses production of a three-dimensional data set as template for three-dimensional machining of a workpiece, but fails to teach or suggest a measuring means adapted for the recognition of an identifier providing information on the workpiece.

With regard to the teachings of *Berlin* however, the Office Action indicates that *Berlin* discloses "means for measuring models characterized in that said measuring means are also adapted for the recognition of an identifier providing information on said workpiece (Column 3, Lines 55-57, Column 4, Lines 16-20, Column 5, Lines 29-44 and Column 6, Lines 27-56)." Applicant respectfully disagrees with this holding based on the reasons presented below.

Specifically, referring to Fig. 1 and Col. 6, lines 47-66 of *Berlin*, *Berlin* discloses an apparatus for measuring coated test panels 2 including a bar code reading device 6, and a measuring station 9 (i.e. "[t]he barcode sticker 8 can be detected with the aid of an automatic reading device 6. The test panels located on the measuring station 9 are finally measured with respect to the desired properties."). Measuring device 4 and reading device 6 are connected via appropriate lines to a central data acquisition unit, i.e. a personal computer 7.

Thus *Berlin* clearly discloses the use of two distinct devices, i.e. a reading device 6 for reading bar code 8 on test panels 2, and a measuring station 9 for measuring the test panels. Moreover, *Berlin* clearly does not disclose performance of an optical 3D measurement and the measuring devices disclosed therein are not suitable for use as a reading device.

These distinctions are important in that as clearly discussed on page 1, line 15 – page 2, line 17 of the original specification, it is discussed that when blanks in the form of partially

cured ceramic blocks are machined and are subjected to a sintering process following machining to achieve final strength values, they must be fabricated larger than the finished product for the reason that they shrink during the sintering process. According to WO 01 97 707, the shrinkage parameters are displayed on the holder in the form of a printed bar code. DE 40 30 176 A1 discloses a grinding machine that has a keyboard, a video monitor and a scanning camera. Furthermore, EP 1 093 768 A2 discloses a system comprising a measuring device and machining equipment for the production of a fitting for tooth restorations.

From the aforementioned prior art, it is known to connect up a commercial bar-code scanner, which will read the enciphered shrinkage data in a bar code located on the blank. Furthermore, it is known to collect the data by actuating the keyboard of the PC. Similar to the separate bar code reader of *Berlin*, the first solution requires a separate bar-code reader, usually in the form of a scanner, while the second solution involving manual input is frequently prone to errors.

Moreover, as also discussed in the original specification, the company Degussa/Dentsply markets a set of equipment under the Trade Name Gereon which combines machining of a workpiece, 3D measuring of a model, and bar code reading of an identifier located on the workpiece in a single set but at different locations therein and using different means for each operation. Here again, as is the case for the separate reading and measuring devices of *Berlin*, there is still a source of error due to the fact that following recognition of the identifier on the blank to be machined the blank might be replaced by another if, say, it should be laid aside before it has been mounted in the workpiece holder.

Thus, as discussed on page 2, lines 15-17, it is an object of the present invention to develop a measuring device such that the information specific to the particular material, in particular the shrinkage parameters, can be collected without high expenditure and with a high degree of error protection.

The aforementioned object is achieved by providing a measuring device including means 16 for (1) measuring models for fabrication of dental fittings involving the production of a three-dimensional data set as a template for three-dimensional machining of a workpiece

11, with the measuring means also adapted for the (2) recognition of an identifier 22 providing information on the workpiece.

Thus Applicant respectfully asserts that *Berlin*, which discloses a reading device 6 and separate measuring station 9, which are prone to the aforementioned disadvantages, clearly does not teach or suggest the measuring device as recited in independent claim 1, which includes a means for both measuring models via production of a three-dimensional data set, and for the recognition of an identifier providing information on the workpiece.

As pointed out in M.P.E.P. § 2143.03, “[t]o establish prima facie obviousness of a claimed invention, all the claimed limitations must be taught or suggested by the prior art”. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). Since this criterion has not been met, Applicant respectfully asserts that the rejection under 35 U.S.C. § 103 (a) should be withdrawn because *Basler*, *Park*, and *Berlin* do not teach or suggest each feature of independent claim 1.

In view of the above arguments, Applicant respectfully requests the rejection of independent claim 1 under 35 U.S.C. § 103 be withdrawn. Additionally, claims 2-9, 14 and 15, which depend from independent claim 1, are allowable at least because their base claim is allowable, as well as for the additional features recited therein.

#### Dependent claims 6, 13, 14 and 16

With regard to dependent claims 6 and 13, Applicant respectfully asserts that *Basler*, *Park*, and *Berlin* viewed either singly or in combination, fail to teach or fairly suggest “wherein software for the fabrication of the fitting is present and that said software is designed such that the information gained from the identifier will be taken into consideration for computation of the fitting to be fabricated,” and with regard to dependent claims 14 and 16, Applicant respectfully asserts that *Basler*, *Park*, and *Berlin* viewed either singly or in combination, fail to teach or fairly suggest “wherein software for the fabrication of the fitting is present and that said software is designed such that the information gained from said identifier will be taken into consideration for control of the machining device.”

Specifically, with regard to dependent claims 6, 13, 14 and 16, the Office Action indicates that *Berlin*, in Col. 5:43-59, Col. 3:55-58 and Col. 4:16-20 thereof, discloses information gained

from the identifier will be taken into consideration for computation of the fitting to be fabricated, or for control of the machining device.

Referring to Col. 5:43-59, it is stated that:

“Within the apparatus according to the invention, the measuring devices and/or the reading device of the identifier, if present, are connected to an electronic data processing system. In this case, this may be, for example, a normal personal computer PC, which has appropriate electronics for the recording and, if necessary, digitizing of measurement data. The automation of the apparatus is rounded off by: electronic recording of this type. The measured values obtained are stored and evaluated directly in the electronic central unit. Furthermore, this electronic central unit can also undertake the control of the gripping and moving device. This is particularly expedient when it obtains the electronically recorded identifying data from the test panel and, depending on this data, forwards the measuring program to be used (measuring devices to be gripped, positions to be moved to on the test panel, . . . ) to the gripping and moving device.”

Thus it is unclear as to where the noted disclosure of *Berlin* discloses information gained from the identifier will be taken into consideration for computation of the fitting to be fabricated.

Referring to Col. 3:55-58, it is stated that:

“The automatic processing of the test panels can be rounded off further by a) the test panels, before their introduction into the feed station, being provided with a machine readable identifier which contains information relating to the identification and hence the test plan, b) the machine-readable identifier being recorded automatically and the information contained therein being accepted into the control system of the gripping and moving device and/or the data acquisition system.”

It is unclear as to where the noted disclosure of *Berlin* discloses information gained from the identifier will be taken into consideration for control of the machining device.

Lastly, referring to Col. 4:16-20, it is stated that:

“Finally, the identifier may also contain information about the shape and size of the test panel. This makes the processing of various types of test panel easier, since their shape/size no longer has to be established by other sensors.”

It is again unclear as to where the noted disclosure of *Berlin* discloses information gained from the identifier will be taken into consideration for computation of the fitting to be fabricated, or for control of the machining device.

Based on the lack of disclosure in *Berlin* of the aforementioned features of dependent claims 6, 13, 14 and 16, Applicant respectfully requests allowance of claims 6, 13, 14 and 16.

Independent claim 10

With regard to independent claim 10, Applicant respectfully asserts that *Basler*, *Park*, and *Berlin* viewed either singly or in combination, fail to teach or fairly suggest a machining device for the fabrication of dental fittings from a workpiece, including, “a workholding device for said workpiece, wherein an identifier with information on said workpiece is provided on said workpiece or a workpiece holder wherein means for recognizing said identifier on said workpiece held in said workholding device are provided and a single measuring device as defined in claim 1 is provided for the purpose of measuring the model and recognizing said identifier,” as recited in independent claim 10, as amended.

Applicant respectfully asserts that independent claim 10 is allowable for at least the reasons presented above for the allowance of independent claim 1, and the additional features recited therein. In the interest of avoiding redundant arguments, the reasons for allowance of independent claim 10 are not repeated herein. Additionally, claims 11-13, 16 and 17 which depend from independent claim 10, are allowable at least because its base claim is allowable, as well as for the additional features recited therein.

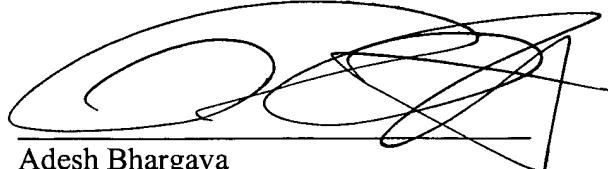
CONCLUSION

In view of the foregoing, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of the response, the Examiner is invited to contact the Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 04-2223. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

**DYKEMA GOSSETT PLLC**



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By:

Adesh Bhargava  
Reg. No. 46,553

DYKEMA GOSSETT PLLC  
1300 I Street, N.W., Suite 300 West  
Washington, D.C. 20005  
(202) 906-8696